

Roll No.

Exam Code : M-21

Subject Code—52858

B.C.A. EXAMINATION

(Main/Reappear Batch 2017 Onwards)

(Third Semester)

COMPUTER ARCHITECTURE–II

BCA-233

Time : 3 Hours

Maximum Marks : 70

Note : Attempt *Five* questions in all. Question No. 1 is compulsory. Attempt any *one* question from each Unit. All questions carry equal marks.

1. Define the following : 14

- (a) MISD
- (b) Uniprocessor
- (c) Multiprocessor
- (d) Pipelining

- (e) Routing
- (f) IEEE
- (g) Interrupt.

Unit I

2. What is role of 1's complement in binary arithmetic ? Explain with example. Also discuss binary multiplication method. 14
3. With the help of appropriate example, discuss IEEE 754 floating point standard. 14

Unit II

4. Discuss different types of interrupts and their utility. Also explain levels and priority of interrupt. 14
5. How is RISC different from CISC ? Explain in detail both architecture. 14

Unit III

6. Explain the concept of look ahead and look behind in pipelining. Explain the process of instruction execution using pipelining. 14

7. Explain speedup factor for different types of pipelining system. Also discuss running the pipeline with minimum idling. 14

Unit IV

8. Explain the following types of parallel processing system with diagram : 14
 - (a) SIMD
 - (b) SISD
 - (c) MISD
 - (d) MIMD
9. Write short notes on the following : 14
 - (a) Dynamic Interconnection Network
 - (b) State Interconnection Network.